

101

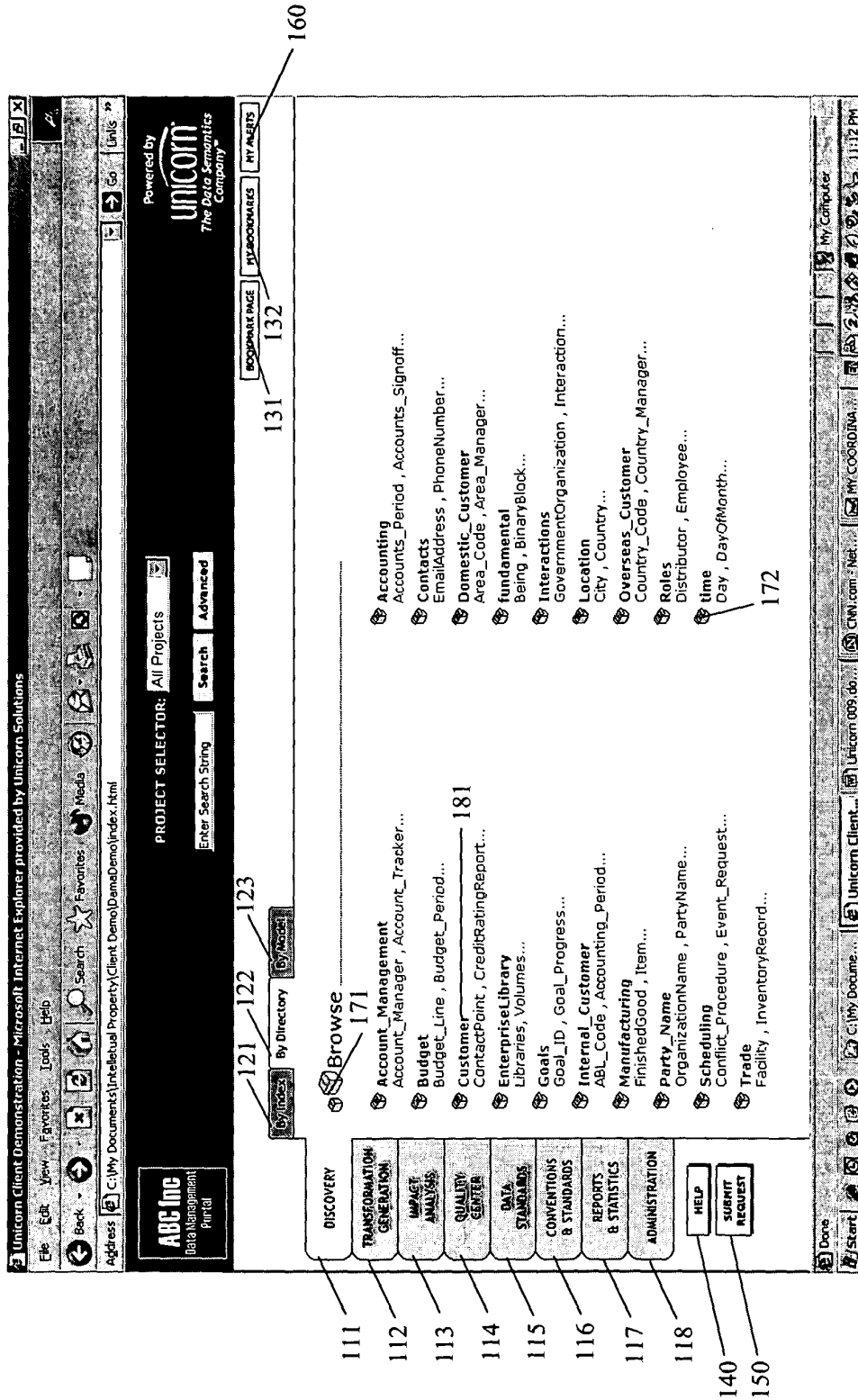


FIG. 1A

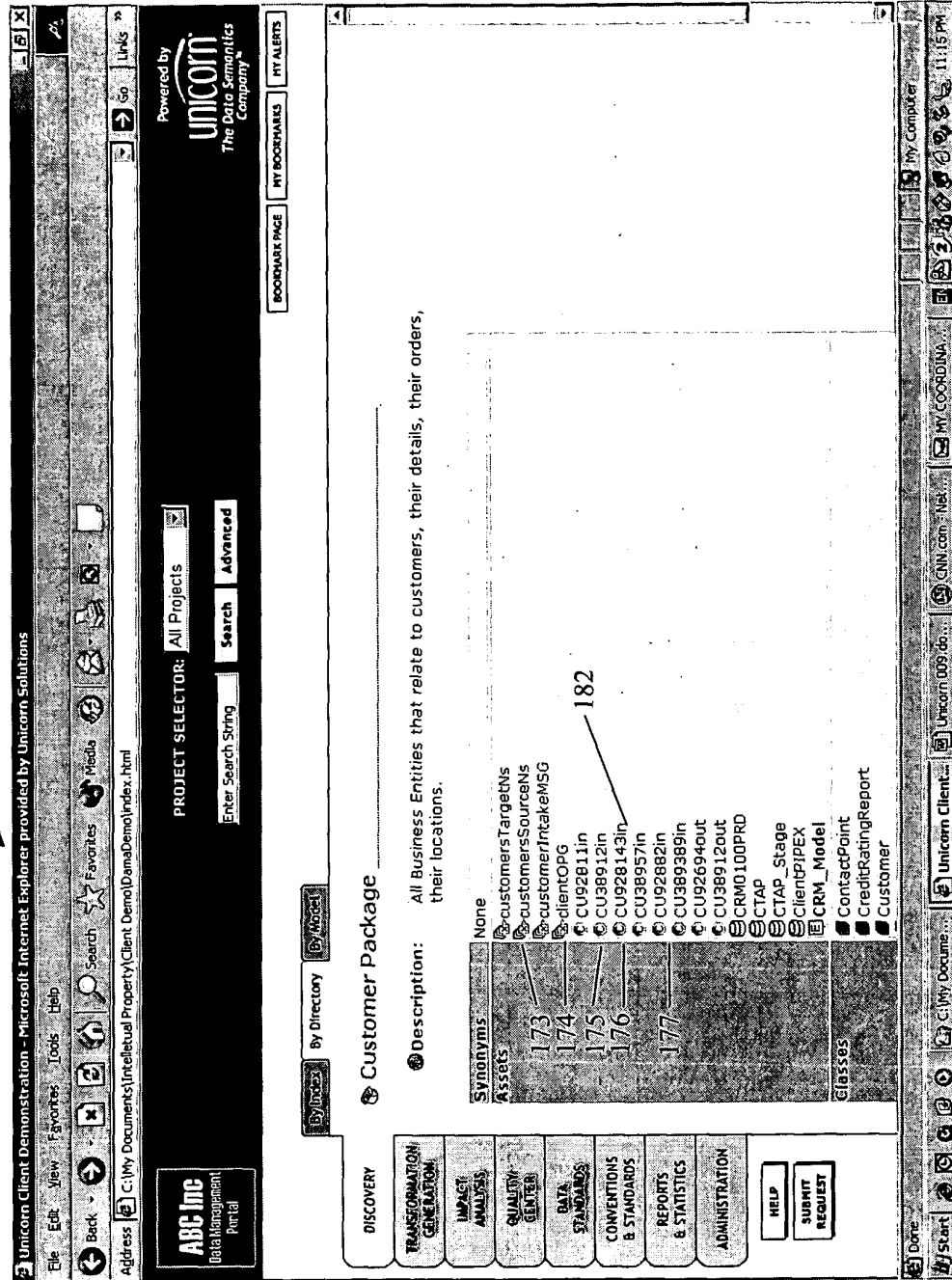


FIG. 1B

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ABC Inc  
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By Index By Directory By Model

Schema Name: CRM\_Model

Description: ERwin logical model of Logis CRM system implemented for all customer groups.

Entities in this logical model:

☐ Businesscustomer  
☐ Dtproperties  
☒ Governmentcustomer  
☐ Individualcustomer  
☐ Militarycustomer  
☐ Orders  
☐ Shipping

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Descriptors

|                                    |  |
|------------------------------------|--|
| Related Web Service                | CustomerYTDValue   |
| Schema Revision Number             | 12   |
| Vendor Name and Version            | CA ERwin 4.0   |
| Schema Owner                       | John L. Smith  |
| Location                           | Pluto {10.10.213.54:5656}<br>Build 5 Lab 6 North Carolina Campus |
| Related Data Model                 | None   |
| Security Information               | High   |
| Applications Feeding               | None   |
| Applications Reading               | None   |
| Source Entity Relationship Diagram | CRM_Model  |
| Initial Load Date                  | Jan. 9, 1998   |

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HELP  
SUBMIT  
REQUEST

Done Start C:\My Document... Unicorn Client... Unicorn.com - Net... CRM.com - Net... MY COORDINA... MY Computer

11:16 PM

FIG. 1C

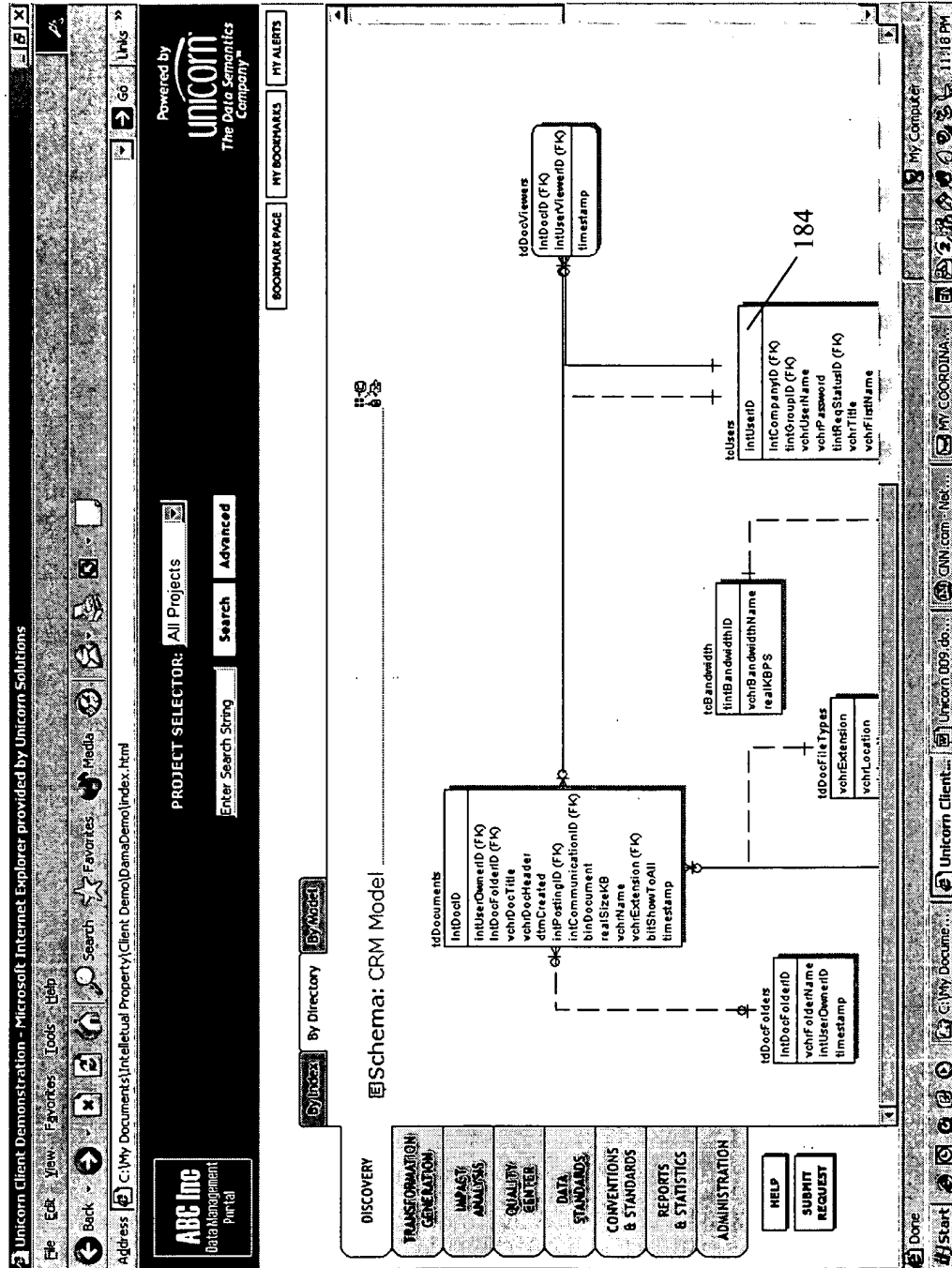


FIG. 1D

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Entity: Tousers

Description: Customer Billing and Transaction Information

| Attribute Name | Type     | Primary Key                         | Allows Null                         | Business Meaning   |
|----------------|----------|-------------------------------------|-------------------------------------|--|
| timestamp      | DateTime | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Not Mapped   |
| vehaddress1    | String   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | IndividualCustomer.address.businessComposedForm : [0..1](String)                     |
| vehaddress2    | String   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | IndividualCustomer.address.businessComposedForm : [0..1](String)                     |
| vehcity        | String   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | IndividualCustomer.address.city.name : [0..1](String)                                |
| vehemail       | String   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | IndividualCustomer.contactPoints.composedForm@EmailAddress : Set[0..*](String)       |
| vehfax         | String   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Not Mapped   |
| vehfirstname   | String   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | IndividualCustomer.names.firstName@PersonName : Set[1..*](String)                    |
| vehjobtitle    | String   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | IndividualCustomer.contactPerson.title : [0..1](String)                              |
| vehlastname    | String   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | IndividualCustomer.names.lastName@PersonName : Set[1..*](String)                     |
| vehpassword    | String   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Not Mapped   |
| vehphone       | String   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | IndividualCustomer.contactPerson.phoneNumber.nationalComposedForm : [0..1](String)   |
| vehstate       | String   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | IndividualCustomer.contactPoints.state@PhysicalAddress.name : Set[0..*](String)      |
| vehtitle       | String   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Not Mapped   |
| vehusername    | String   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Not Mapped   |
| vehzipcode     | String   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | IndividualCustomer.contactPoints.postalArea@PhysicalAddress.code : Set[0..*](String) |

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DISCOVERY

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FIG. 1E

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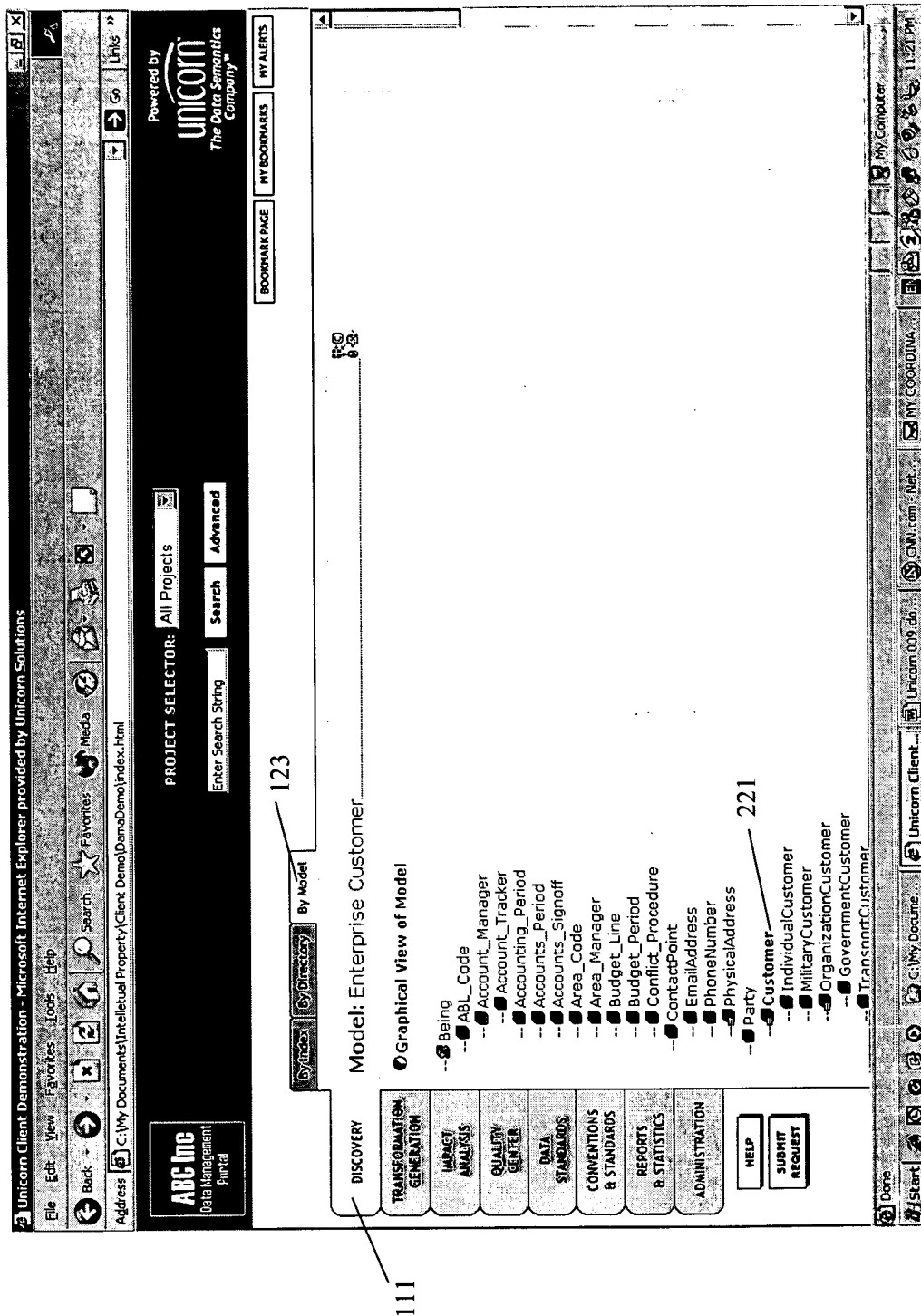


FIG. 2A

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**Class: Customer**

Description: Entities who purchase products from the Enterprise, including organizations and individuals.

Package EnterpriseCustomer.Customer  
Show Neighborhood Graph for Customer  
Find Related Data Sources for Customer  
Superclasses This class is a type of Party and Role  
Subclasses IndividualCustomer, InternalCustomer, MilitaryCustomer, OrganizationalCustomer  
Related Classes None  
Synonyms User, Buyer, Purchaser, +;  
Model Level of Class None  
Associated URL None  
Example Instances None  
Type of Class None  
Informal Business Rules None

Graphical View of Model

By Model

Discovery

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Properties of Customer

| Name           | Type            | Description  |
|----------------|-----------------|--|
| avgYearlySales | RealNumber      | The average yearly sales, post tax, of the custom... |
| billingAddress | PhysicalAddress | Address to which one sends the bill                  |

Unicorn Client...

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FIG. 2B

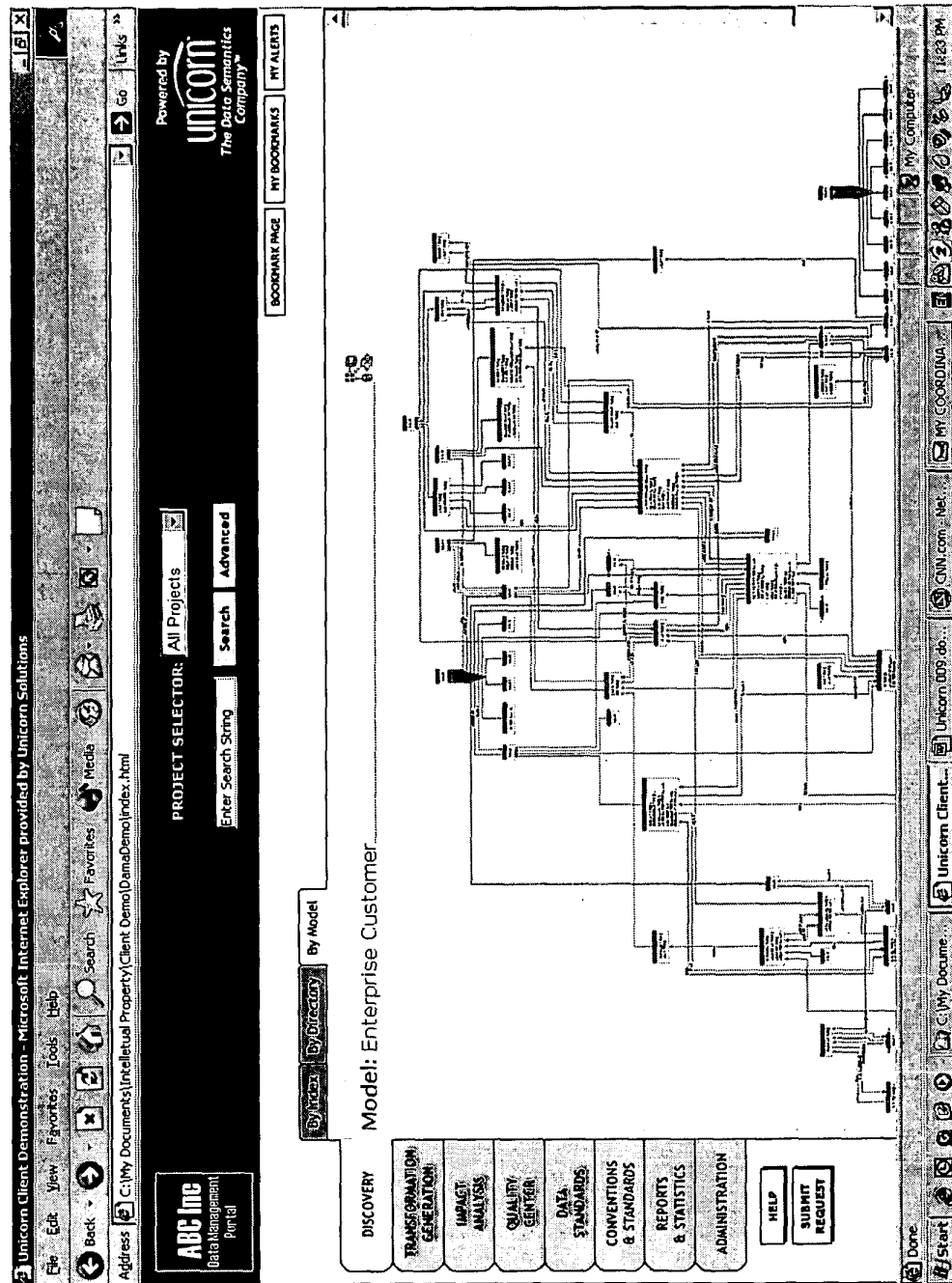


FIG. 2C



FIG. 2D

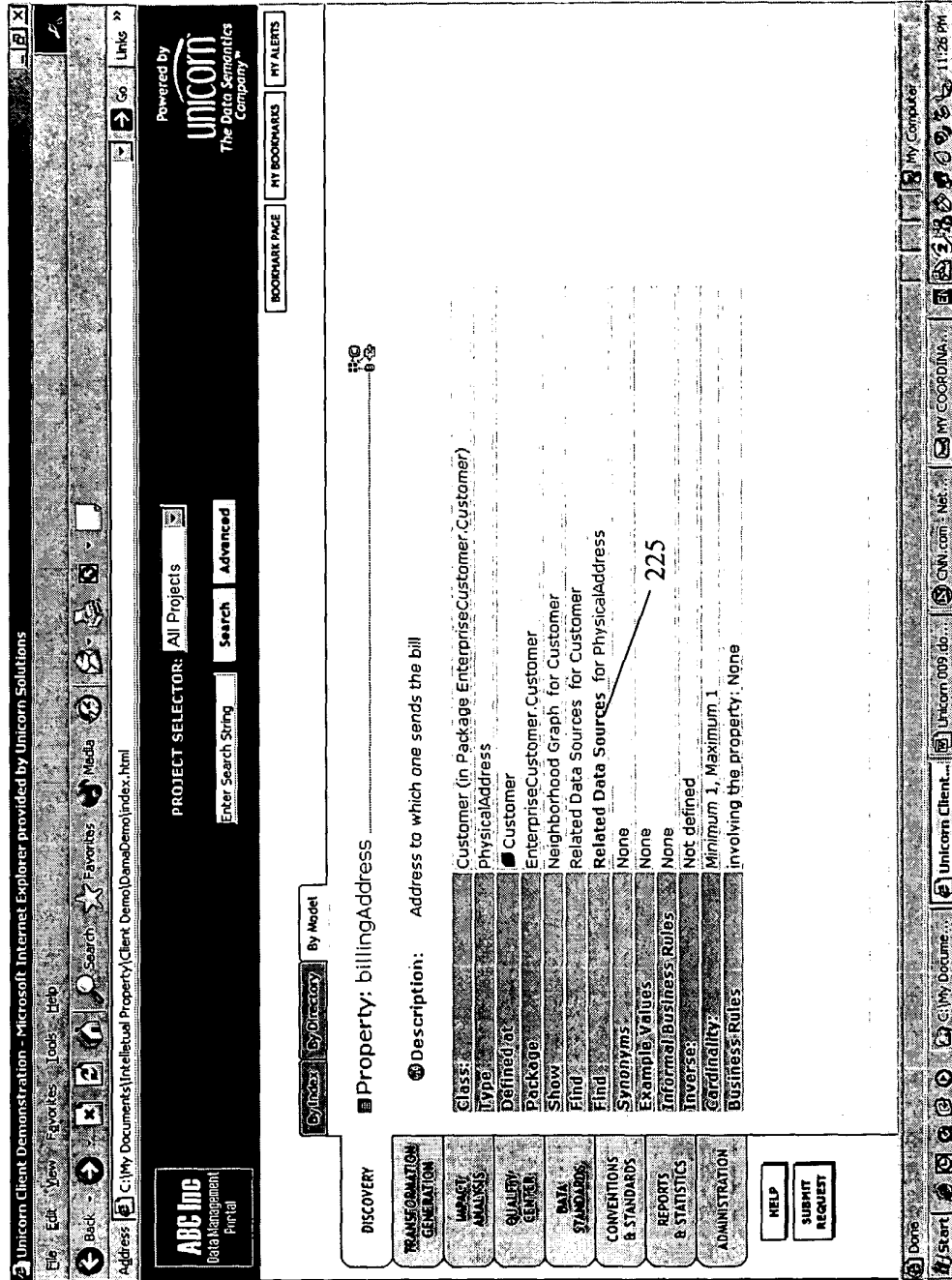


FIG. 2E

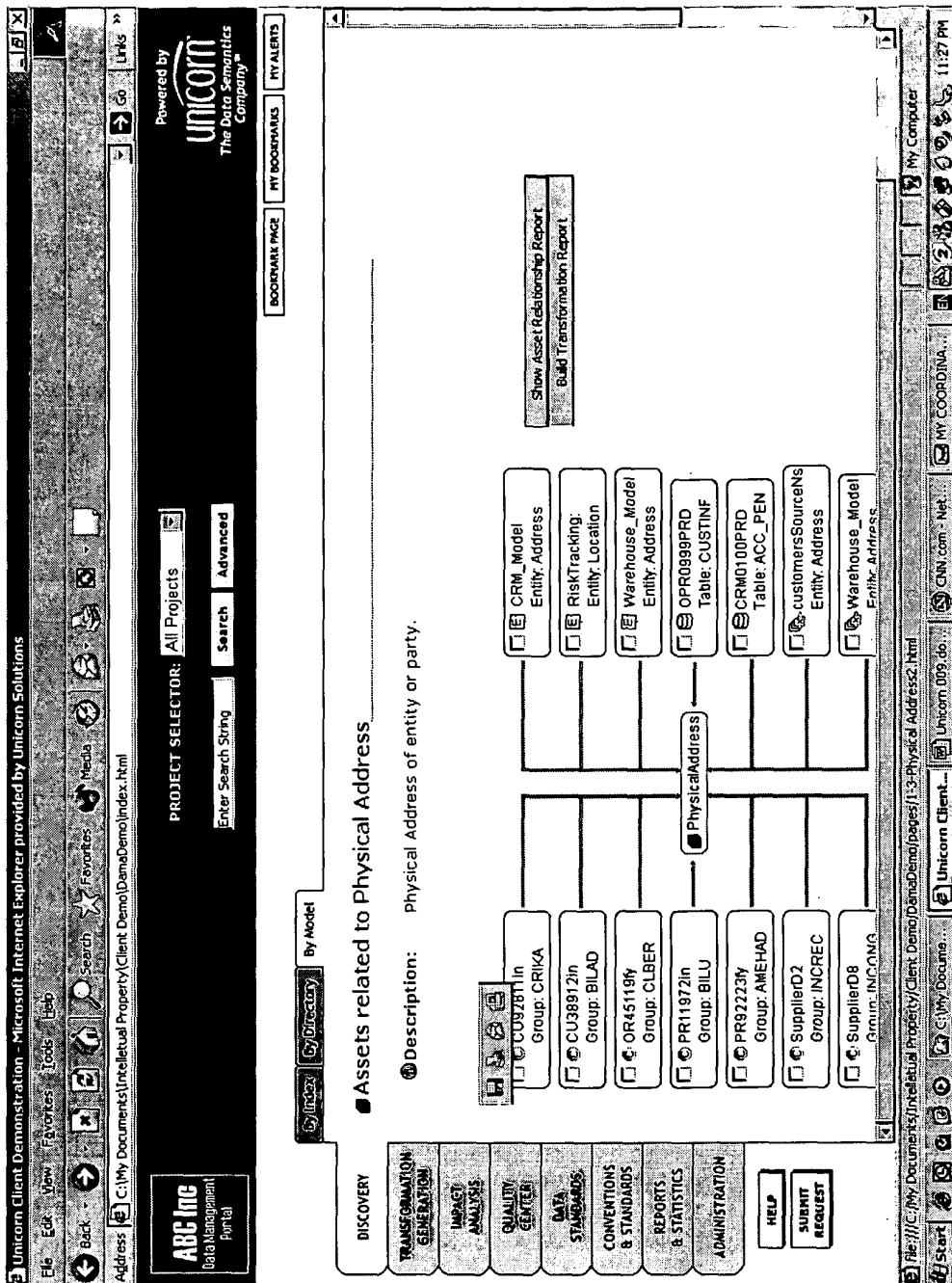


FIG. 2F

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Assets related to Physical Address

Description: Physical Address of entity or party.

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CRM Model Entity Address

RiskTracking Entity Location

Warehouse Model Entity Address

OPR0999PRD Table CUSTINF

CRM0100PRD Table ACC\_PEN

customersSourceNs Entity Address

Warehouse Model Entity Address

CU38812in Group: CRIKA

CU38812in Group: BILAD

OR45119y Group: CLBER

PR11972in Group: BILU

PR92223y Group: AMEHAD

SupplierD2 Group: INCREC

SupplierD8 Group: INCONG

PhysicalAddress

Show Asset Relationship Report

Build Transformation Report

Done

Start

Unicorn Client...

Unicorn D09.db

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My Computer

MY COORDINATE...

11:28 PM

FIG. 2G

FIG. 2H

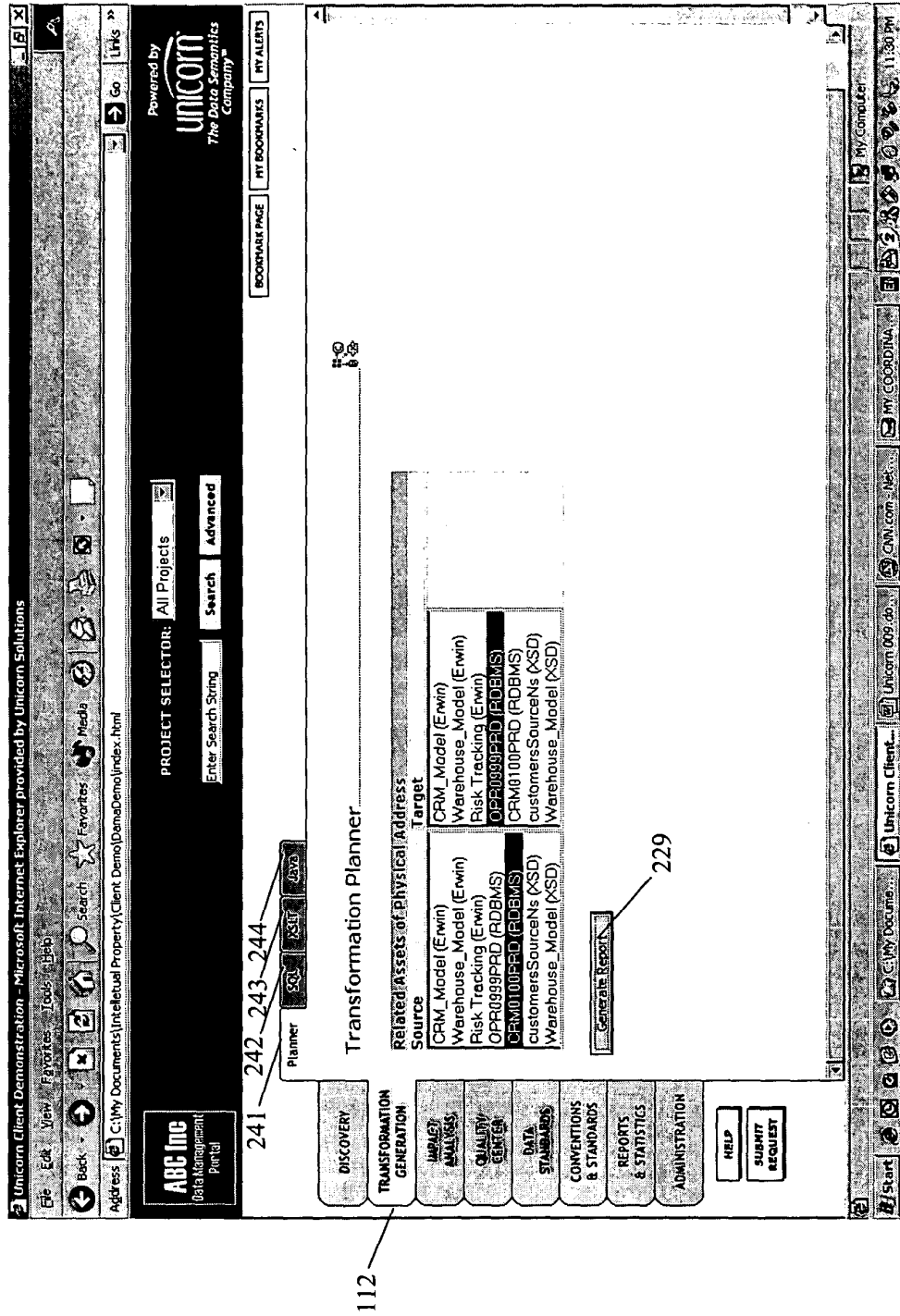


FIG. 2I

FIG. 2J

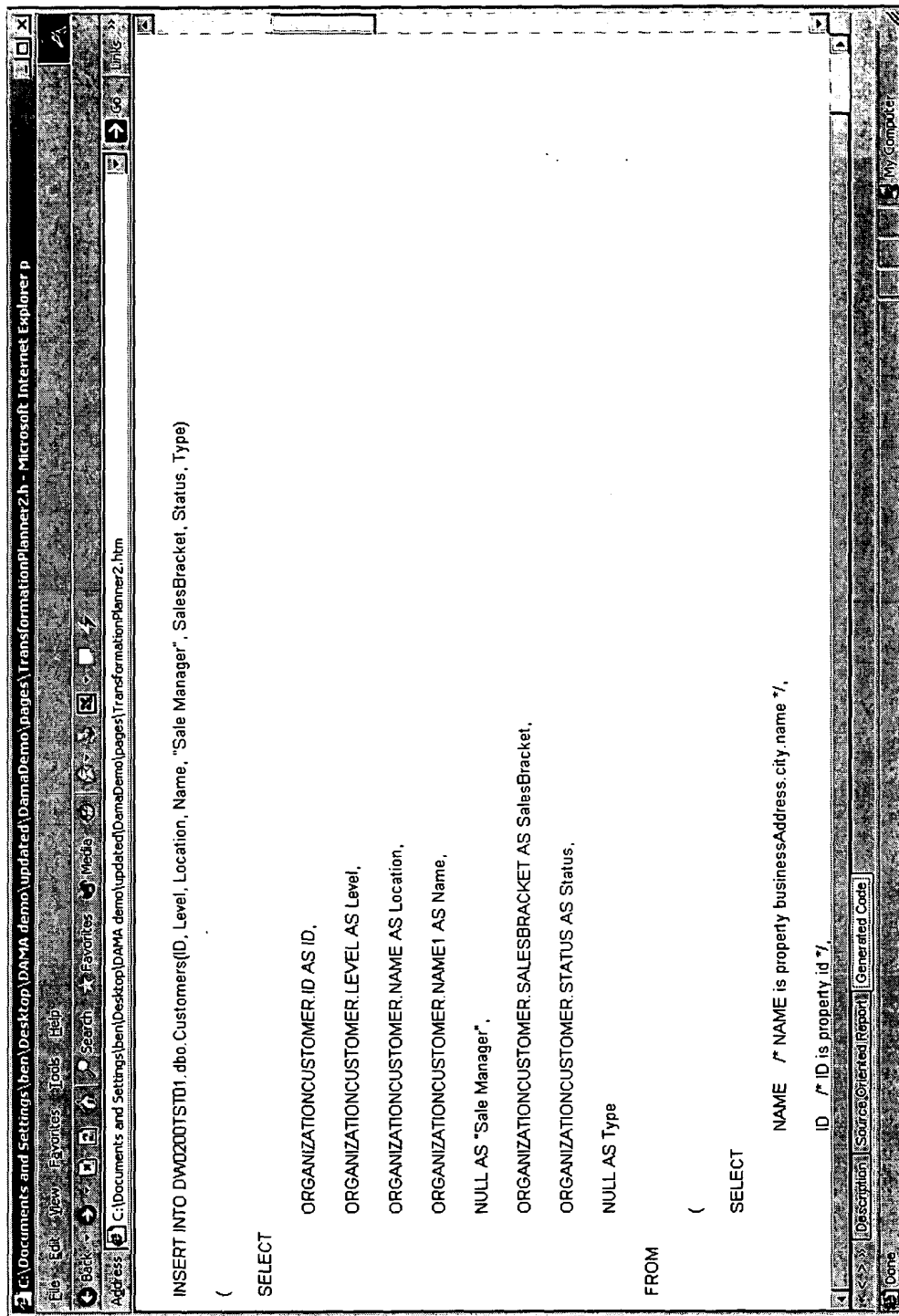


FIG. 2K



FIG. 3A

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What If? Recent Changes Impacted Concepts

### Impact Analysis: What If?

RDBMS Schema Name: CRM0100PRD [Selected Impact Scenario: Modify / Update Asset ]

Description: Siebel Customer Relationship Management System for storing all customer details across all divisions of the Enterprise. This will be a complete customer view in 2004. Takes XML data from SFA application in daily EDI exchanges.

Please select modified or updated version of the asset to upload.

332 Browse Generate Report 334

| Descriptors:                             |  |
|--|--|
| Asset Owner Contact Information          | David Clarkson (Email), Central Data Management, Fairlight Campus, Extension 204. Full Contact Details |
| Other Domain Experts Contact Information | None   |
| Data Quality Level                       | Low - Data Profile to Start  |
| Asset Status                             | Under Quality Review (category 3b)   |
| Related Web Service                      | GetCredit; GetCreditRating   |
| Related Data Model                       | None   |
| Applications that write to this Asset    | OR45119fy ; OR99756bb ; SU48902de ; Lawson PMS   |
| Applications that read from this Asset   | Great Plains ; OR45119fy ; OR99756bb ; SU48902de ; Lawson PMS; Great Plains                            |
| Security Information                     | CDM restricted via LDAP  |

Tables in this Schema:

DISCOVERY

TRANSFORMATION GENERATION

IMPACT ANALYSIS

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CONVENTIONS & STANDARDS

REPORTS & STATISTICS

ADMINISTRATION

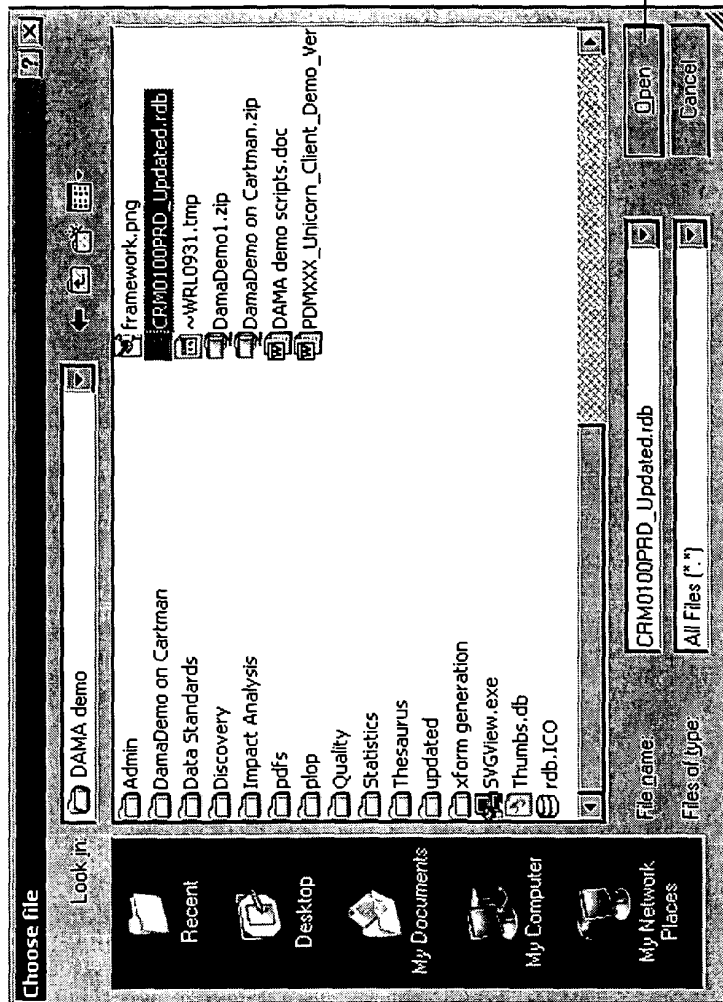
HELP

SUBMIT REQUEST

My Computer

FIG. 3B

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FIG. 3C

FIG. 3D

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What If? Recent Changes Unpacked Concepts

### Submit Request

|                           |                   |  |
|---------------------------|-------------------|--|
| DISCOVERY                 | To:               | Data Management Group                                    |
| TRANSFORMATION GENERATION | From:             | Chuck Lewis  |
| IMPACT ANALYSIS           | Group:            | Application Development Support                          |
| QUALITY CENTER            | Extension:        | 2318   |
| DATA STANDARDS            | Email:            | chuck.lewis@mail...                                      |
| CONVENTIONS & STANDARDS   | Subject:          | DAM compliance for CRM0100PRD                            |
| REPORTS & STATISTICS      | Requested Action: | <Please update the attached asset to replace CRM0100PRD> |
| ADMINISTRATION            | Attachment:       | CRM0100PRD_v012.rdb                                      |
| HELP                      | Comments:         |  |
| SUBMIT REQUEST            | Submit Request:   | Submit   |

Done Start Stop My Documents My Computer My Coordinates My Documents Net... Unicorn Client... Unicorn 009.doc... C:\My Documents... 11:37 PM

150

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FIG. 3E

401

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411 412 413 414 415

Valid Values BR Validator Dictionary/Analysis Scripts Enforcement

Business Rule Validator: Index [a-z]

Show the following business rule types:

☐ Enumeration ☒ Conversion ☐ Look Up Table

| Name                         | Class           | Type       | Description  |
|------------------------------|-----------------|------------|--|
| Central Insurance Rating     | InsuranceRating | Conversion | Converts insurance parameters to a ratings according to OIE.                     |
| Currency Converter           | Currency        | Conversion | ISO conversion using line feeds.   |
| Legacy To New Quality Codes  | Quality         | Conversion | Updates to 2001 rework of QST codes for product throughput.                      |
| LoyaltyLevelCalc             | LoyaltyLevel    | Conversion | Calculate Customer Loyalty Level   |
| Net Gain On Unit Sales       | TaxRates        | Conversion | Removes sales costs and taxes to reach IRU net profit.                           |
| Possession Codes             | Location        | Conversion | US territories conversion  |
| Price Adjuster Cat Local Tax | Pricing         | Conversion | Uses US state code local tax table to calculate price feeds to sales department. |
| Quantity Units Converter     | Shipping        | Conversion | ISO metric/imperial conversion for weights.                                      |
| Remote Description           | Connection      | Conversion | Converts offline adaptor feeds to current online                                 |

DISCOVERY  
TRANSFORMATION/GENERATION  
MARKET ANALYSIS  
QUALITY CENTER  
DATA STANDARDS  
CONVENTIONS & STANDARDS  
REPORTS & STATISTICS  
ADMINISTRATION

HELP  
SUBMIT REQUEST

Done

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FIG. 4A

FIG. 4B

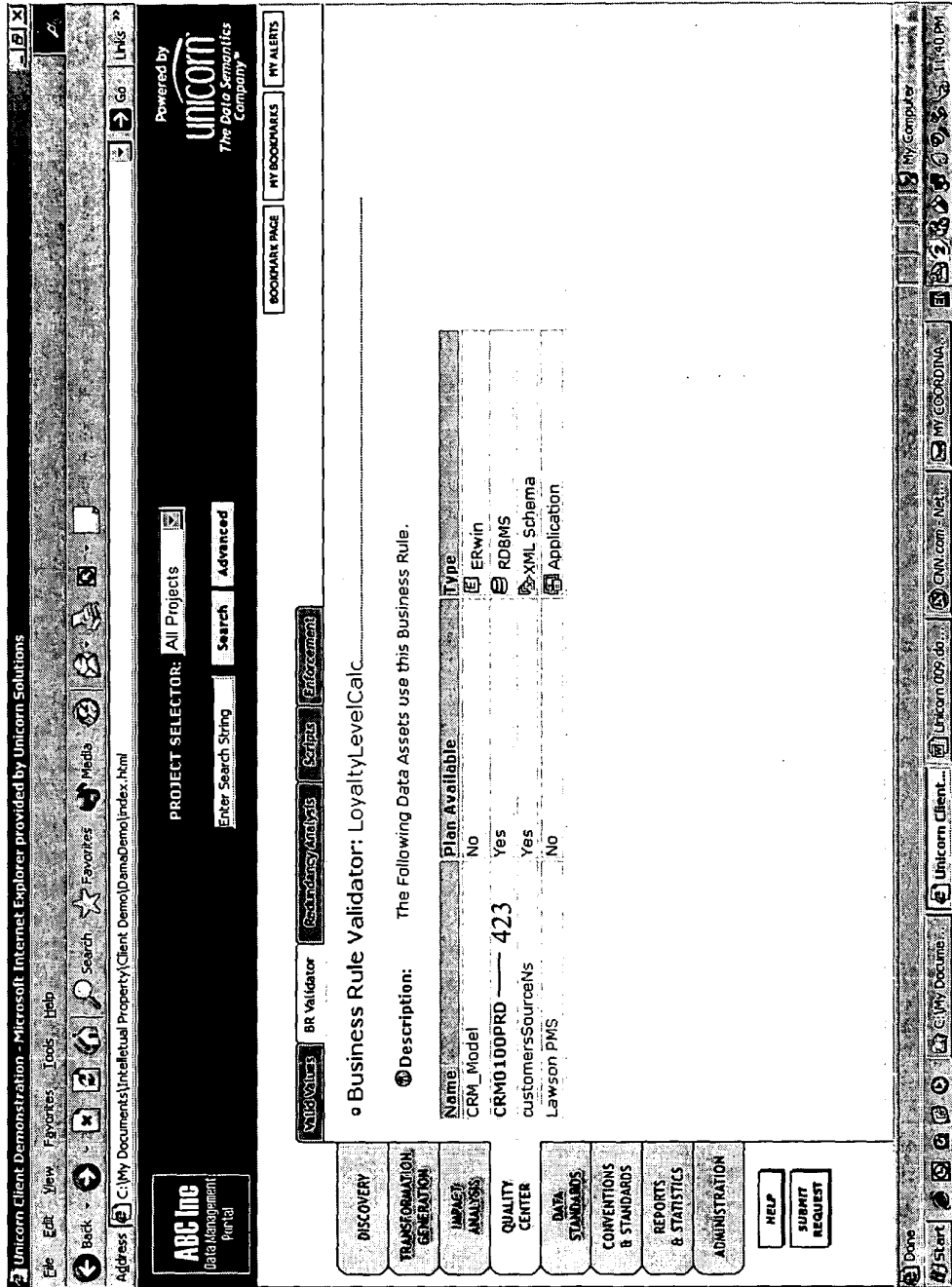


FIG. 4C



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Validation BR Validator Business Analysis Scripts Enforcement

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DISCOVERY  
TRANSFORMATION  
GENERATION  
IMPACT  
ANALYSIS  
QUALITY  
CENTER  
DATA  
STANDARDS  
CONVENTIONS  
& STANDARDS  
REPORTS  
& STATISTICS  
ADMINISTRATION

HELP  
SUBMIT  
REQUEST

Validation Procedure: CRM100PRD

Print Friendly E-mail Report Save Report

Use these steps to assess whether the asset data conforms to the LoyaltyLevelCalc business rule logic.

| Step | Description                                      | Instructions  |
|------|--|---|
| 1    | Arrange data instance set                        | Join table 'Customer' with table 'Record' through the foreign key 'CustID'                          |
| 2    | Calculate required value for business rule       | Subtract value in column 'Customer.JanDecTotDisc' from column 'Customer.JanDecTotSpand'             |
| 3    | Validate rule                                    | Use LoyaltyLevelCalc formula against results of stage 2 above and check against column Customer.Cat |
| 4    | Output results to external file or database view | Rows : as per CustID  |

Columns:  
a) Customer.Cat  
b) <results of stage 2>  
c) Boolean: true / false

Generate SQL script for CRM100PRD to populate a new table with validation results: **Generate**

Done Start My Documents My Documents... Unicorn Client... Unicorn 009... CRM.com... My Computer

FIG. 4D

501

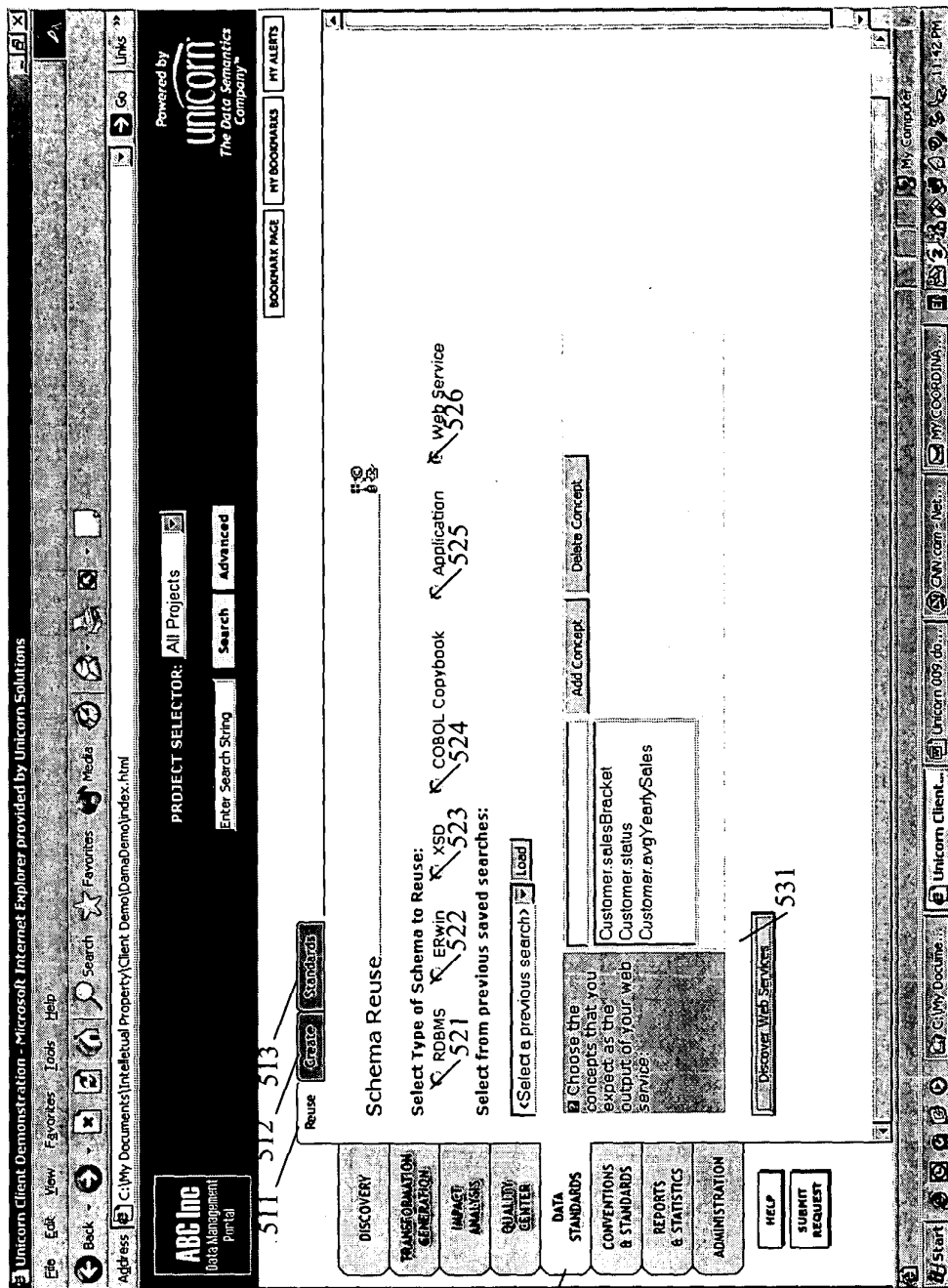


FIG. 5A

FIG. 5B

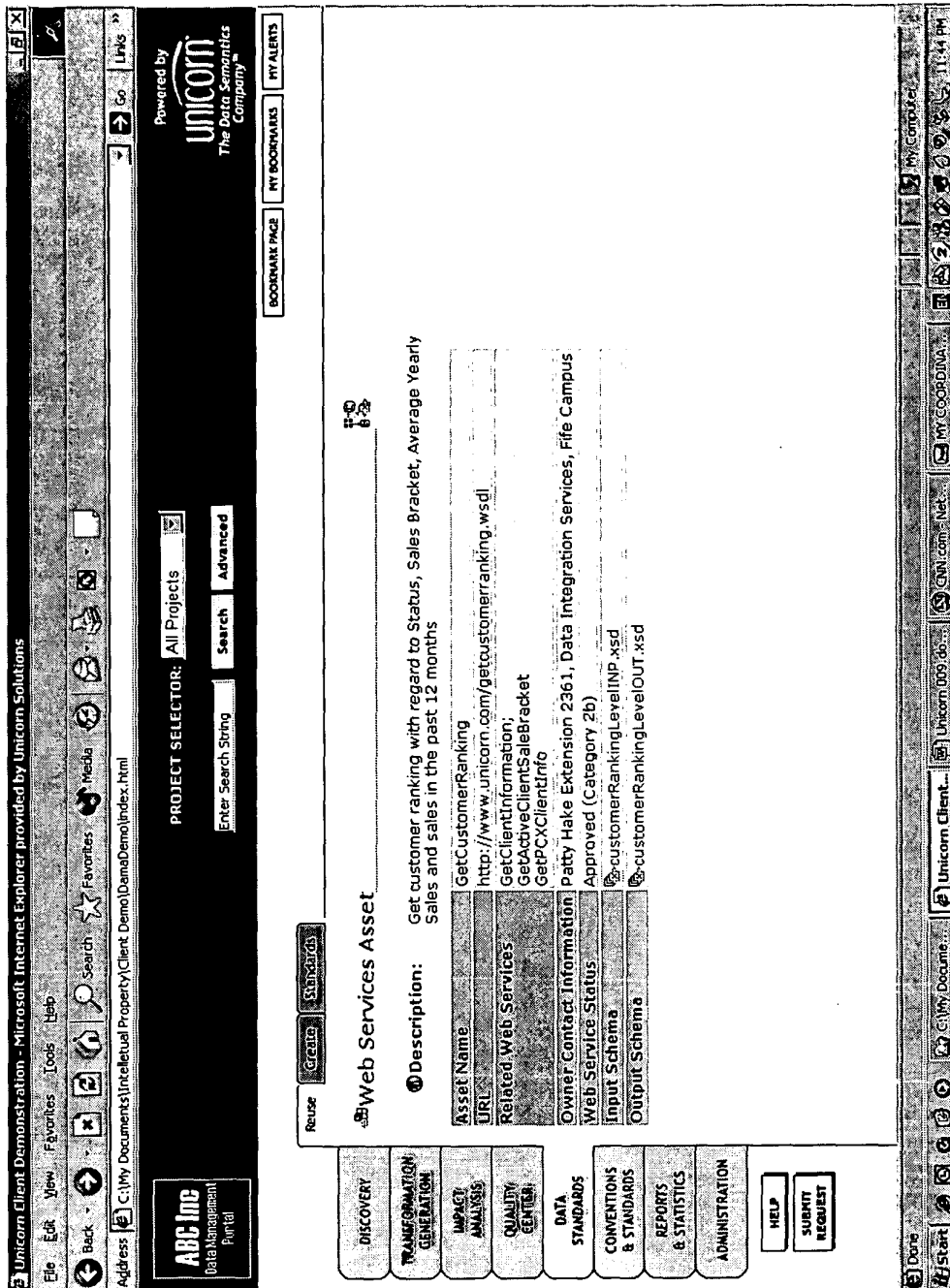
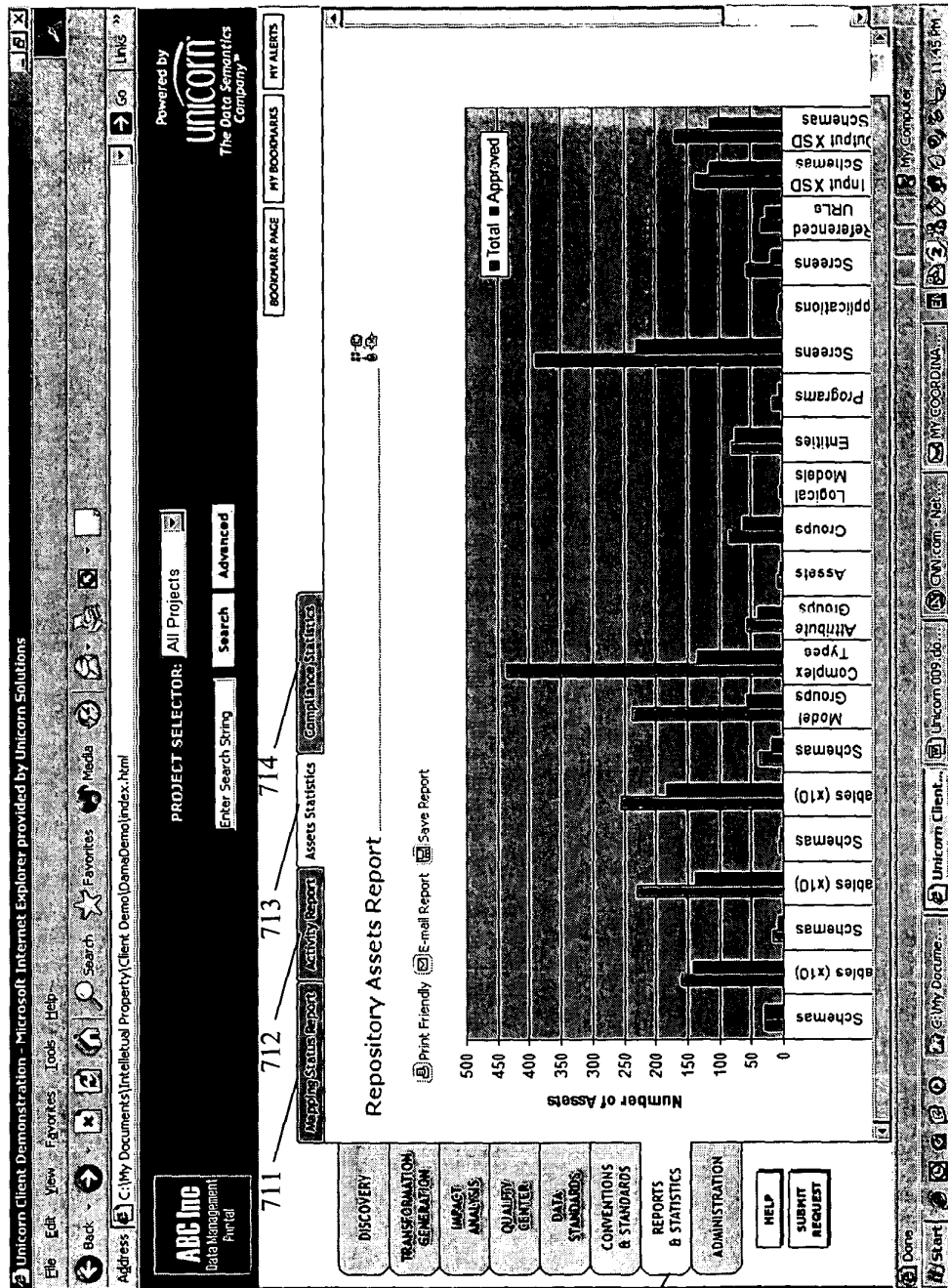


FIG. 5C

FIG. 6

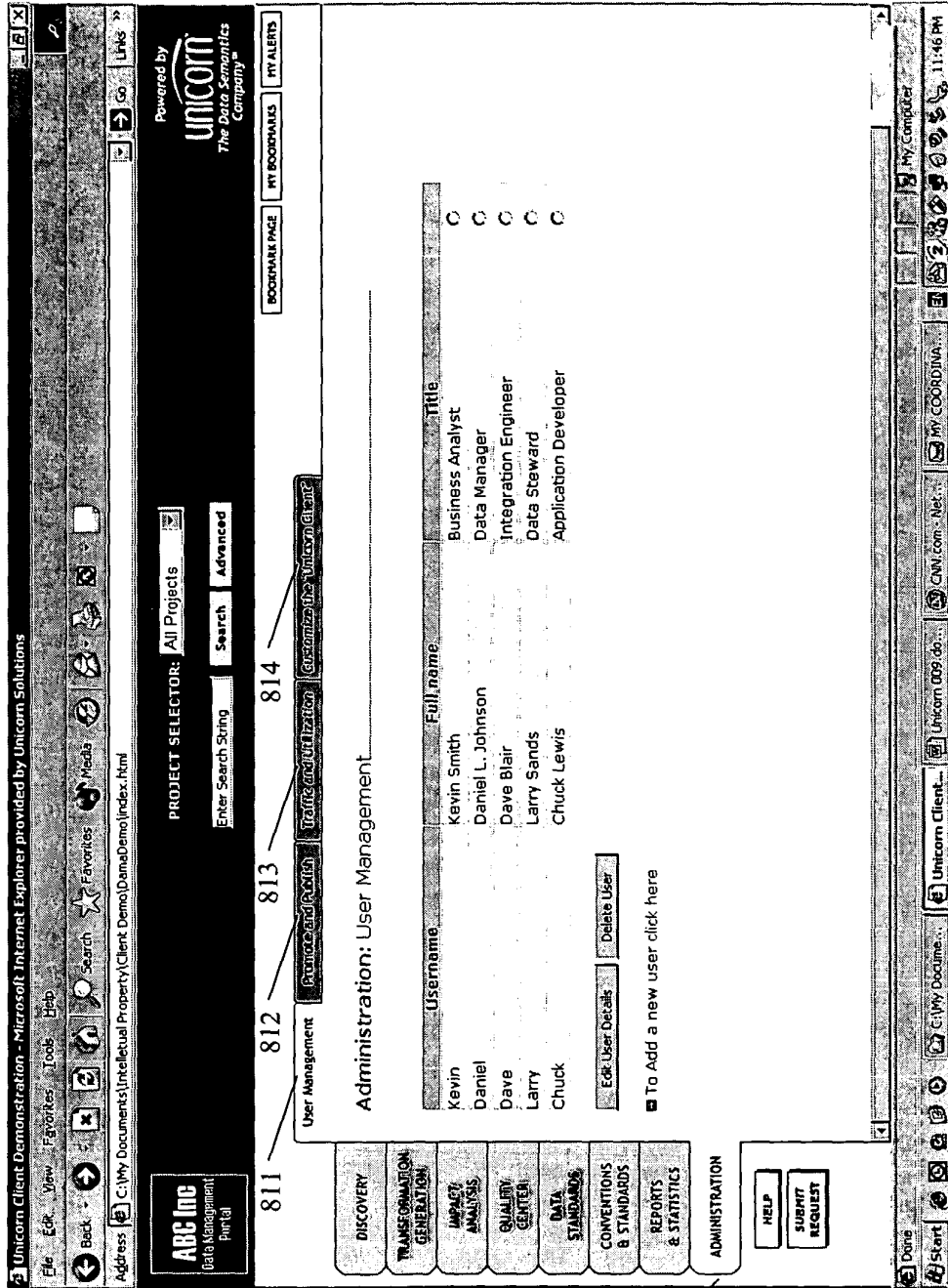
701



117

FIG. 7

801



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FIG. 8

901

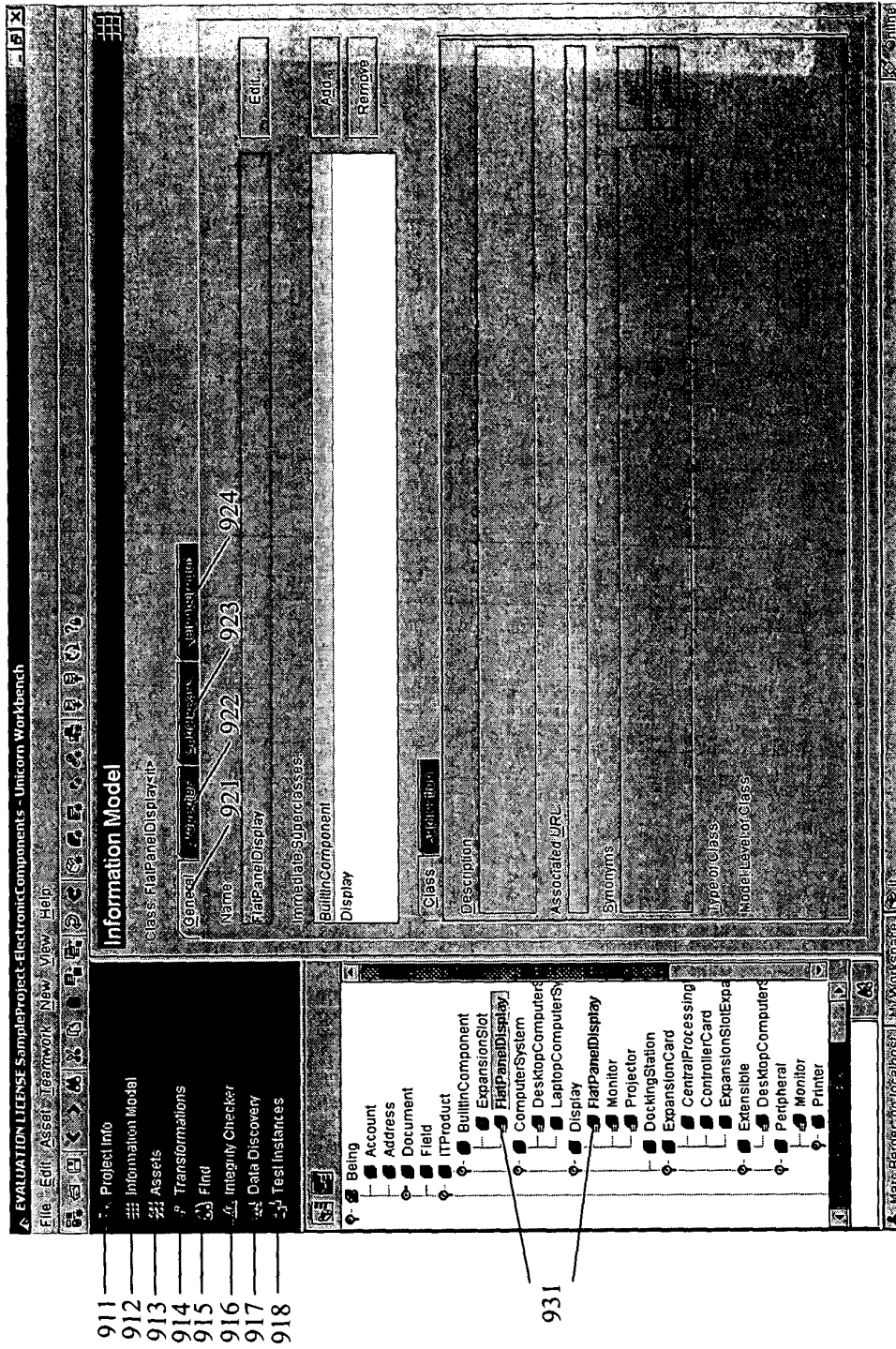


FIG. 9A



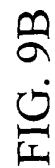


FIG. 9B

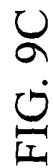
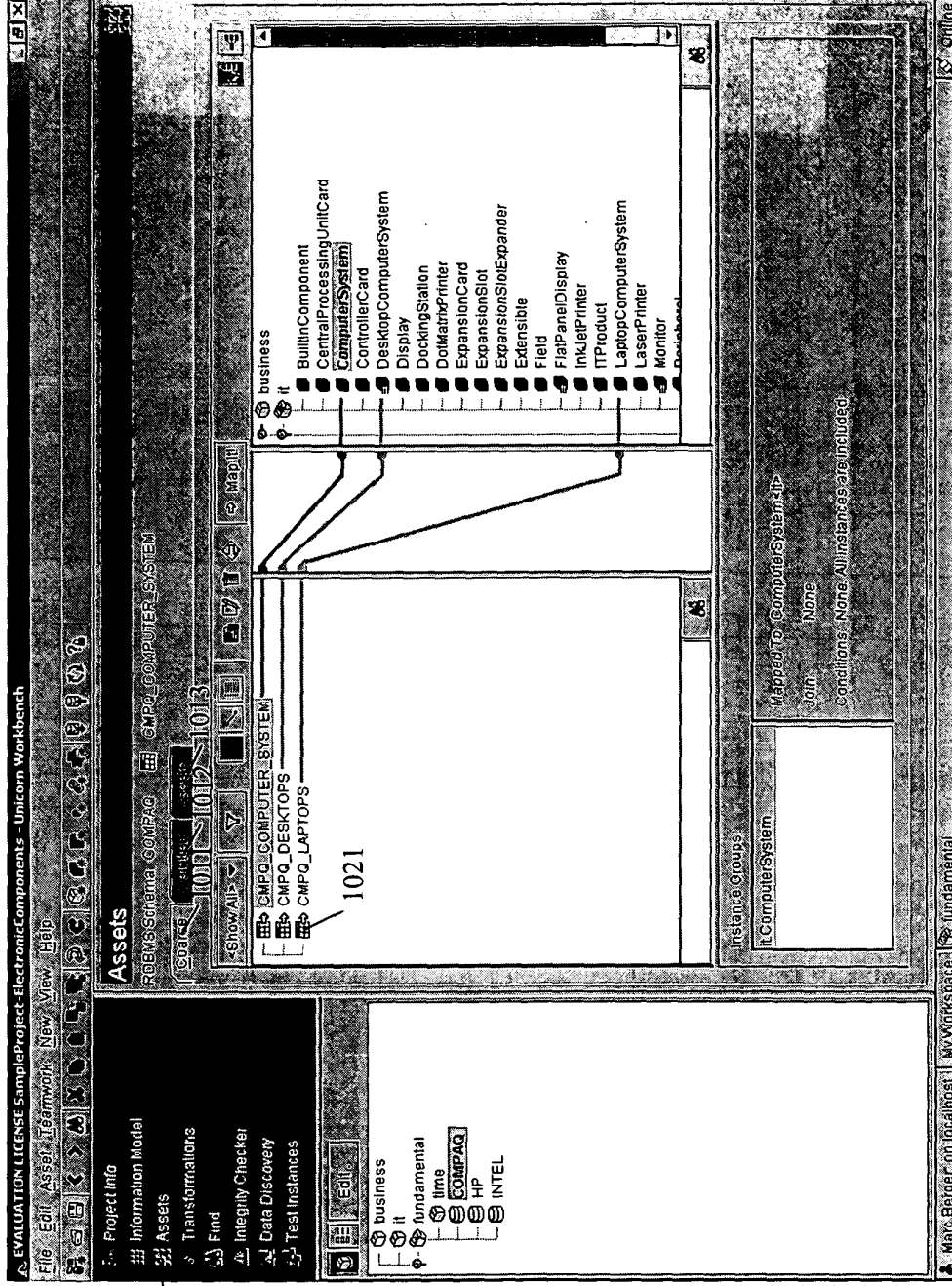


FIG. 9C

1001



913

FIG. 10A

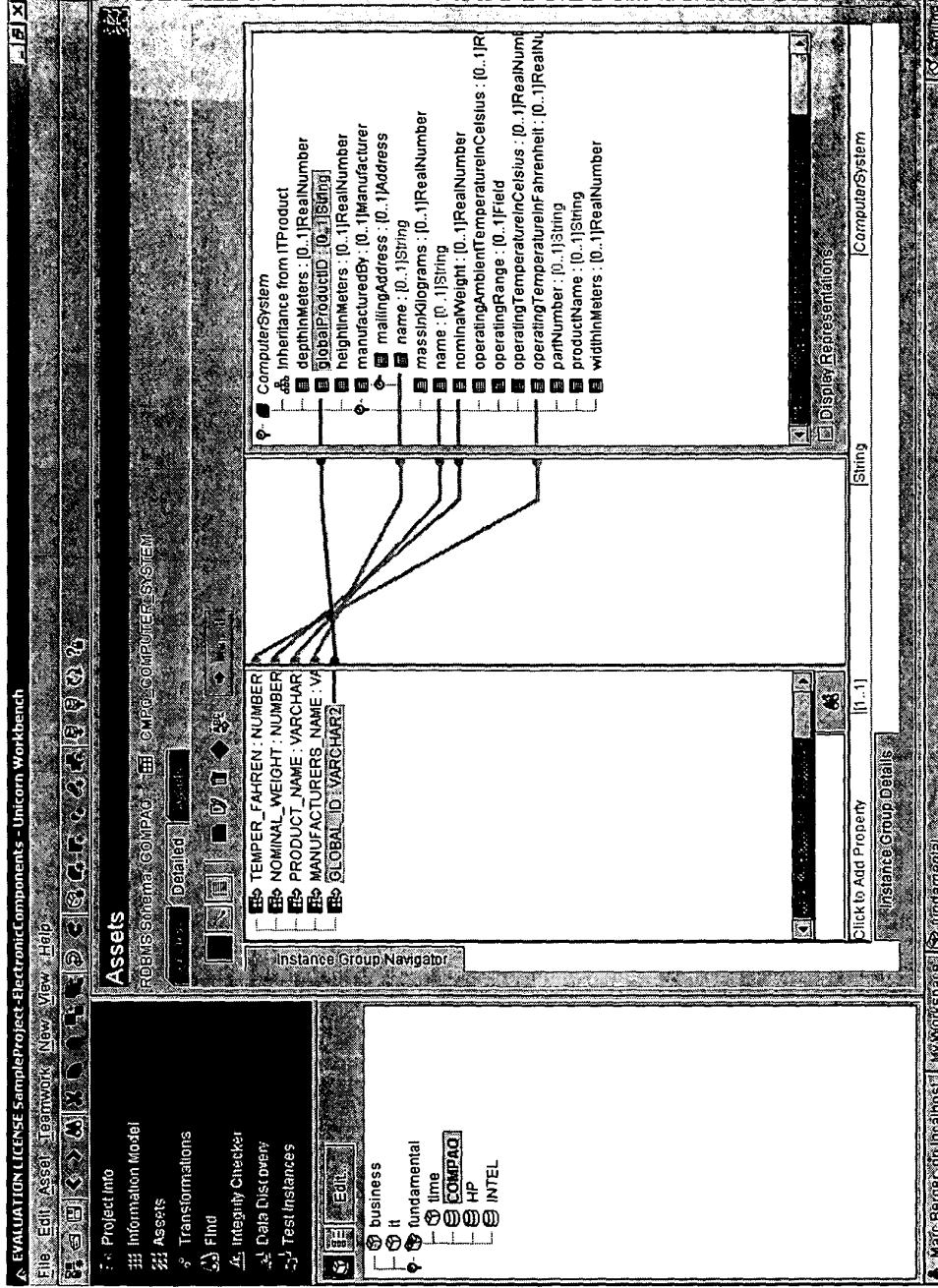


FIG. 10B

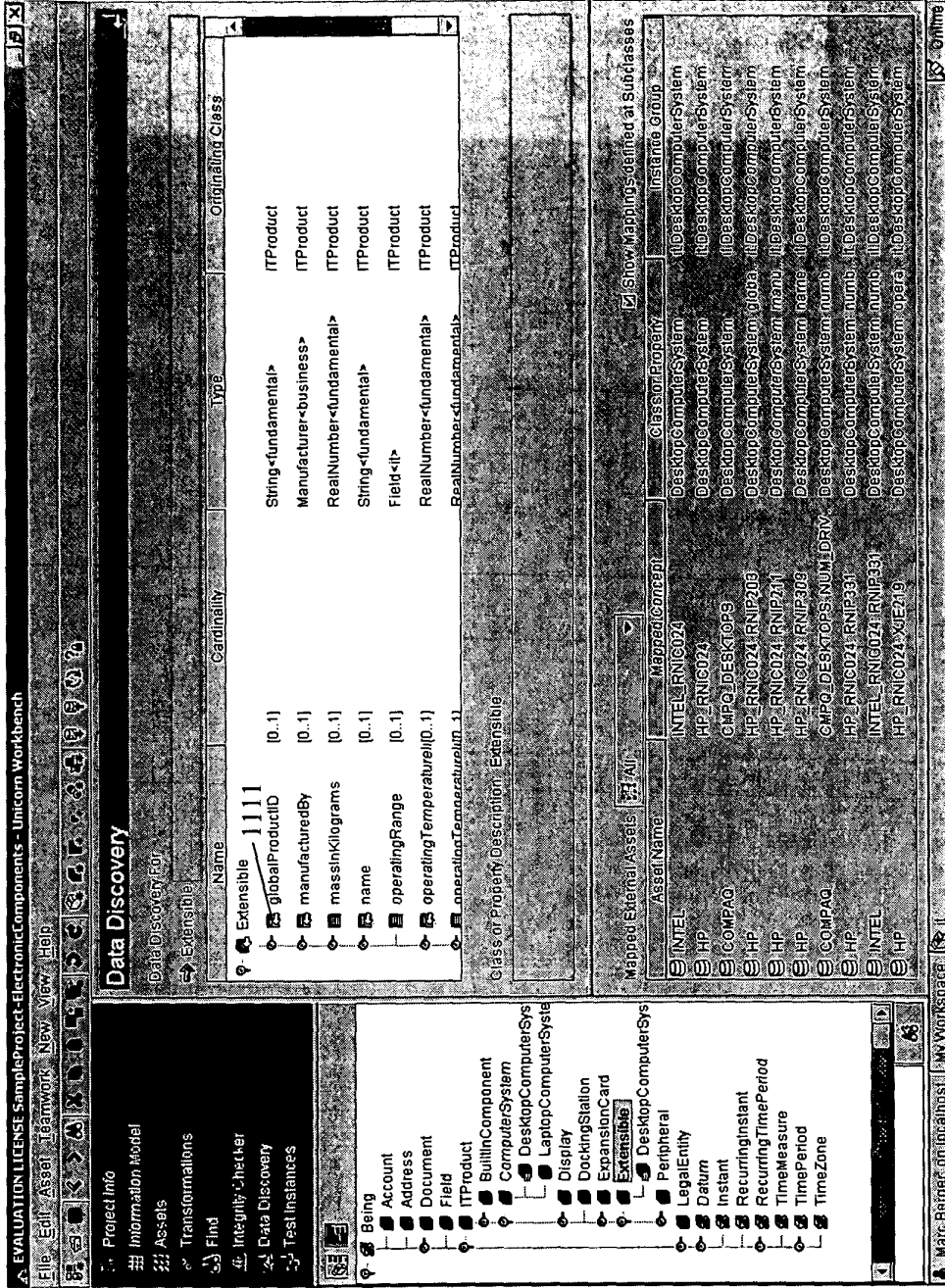


FIG. 11A

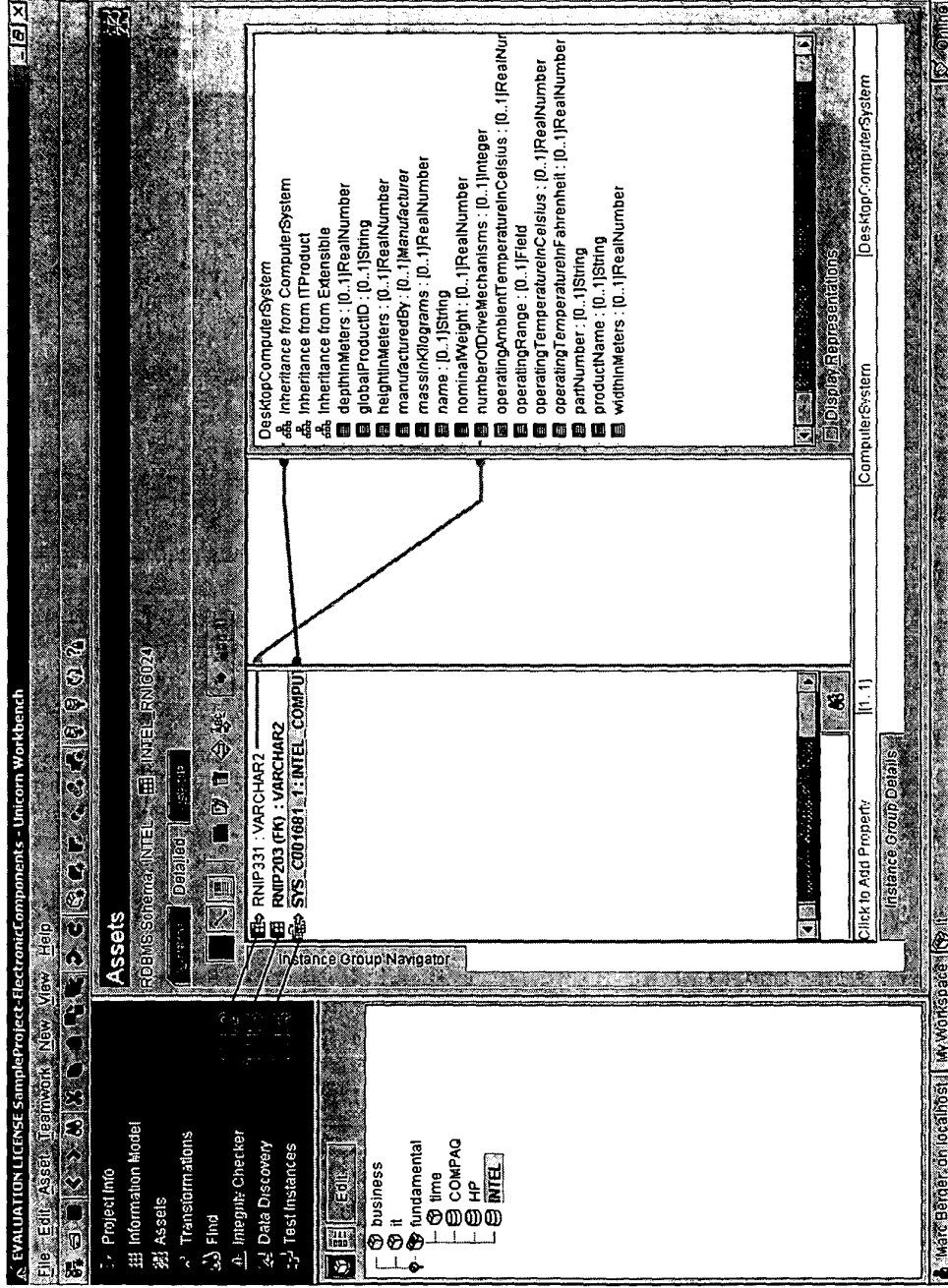
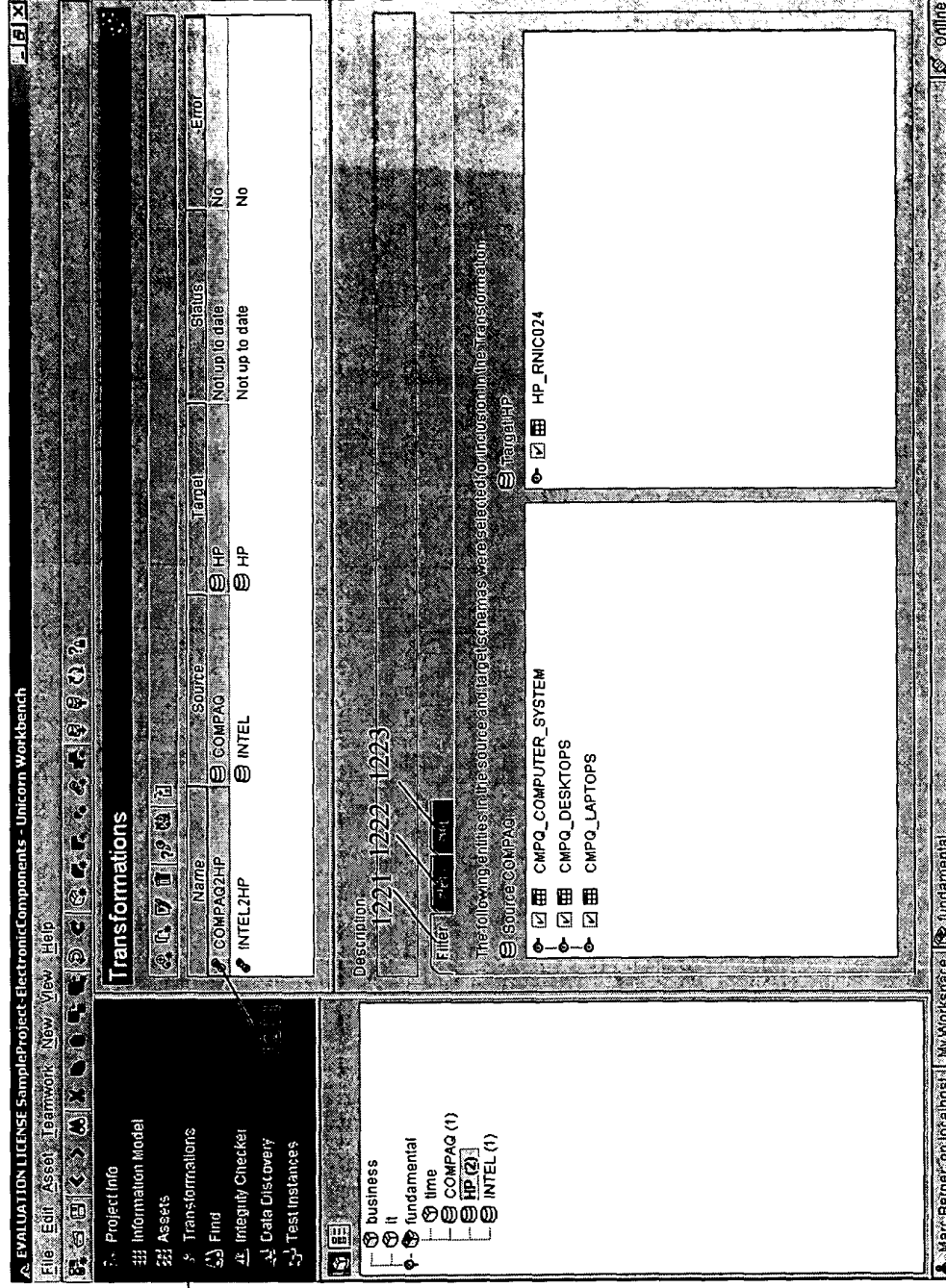


FIG. 11B



1201



914

FIG. 12A

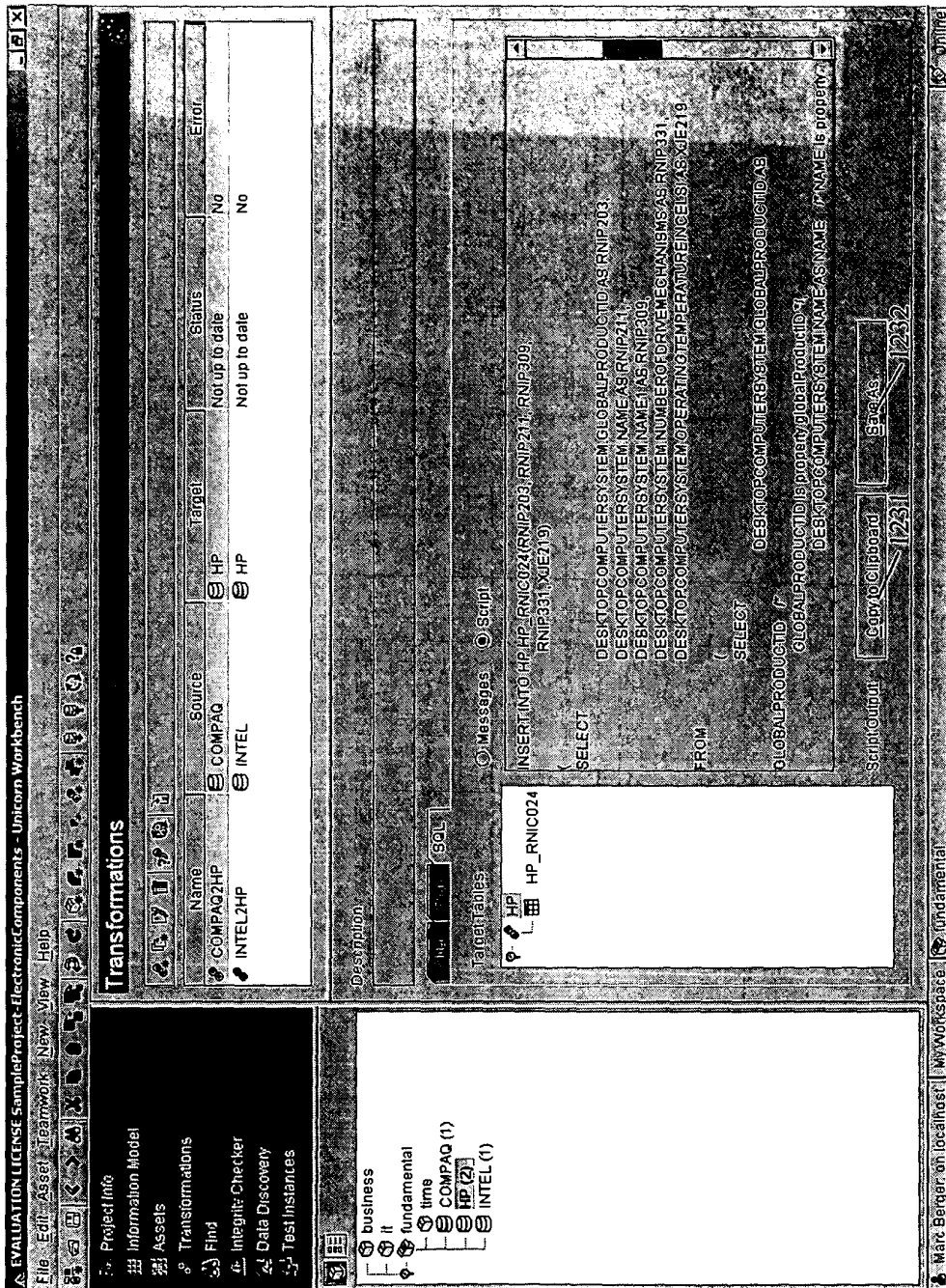


FIG. 12B



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Project Info

Information Model

Assets

Transformations

Find

Integrity Checker

Data Discovery

Test Instances

File Edit Asset Framework New View Help

Test Instances of Class: OrderItem

Displayed As: quantity

| ID   | Value | OrderItem | Class |
|------|-------|-----------|-------|
| <95> | 120   | OrderItem |       |
| <96> | 87    | OrderItem |       |

Next

Edit

Delete

Instance Data: User Defined Functions are not supported in Test Instances

| Property    | Type                 | Value             |
|-------------|----------------------|-------------------|
| Item        | [0..1] (Product)     |                   |
| LineTotal   | [0..1] (RealNumber)  | 9229.937036854777 |
| Order       | [0..1] (Order)       |                   |
| PriceScheme | [0..1] (PriceScheme) | <99> N/A          |
| Quantity    | [0..1] (Integer)     | 120               |

Validation Error(s)

Details

| Instance    | Class       | Details   |
|-------------|-------------|---|
| Party       | Party       | A value for property name is required. Instances <29> and <35> are missing values for this property.  |
| Party       | Party       | A value for property primaryName is required. Instances <29> and <35> are missing values for this property.   |
| Role        | Role        | A value for property context is required. Instances <29> and <35> are missing values for this property.   |
| Role        | Role        | A value for property party is required. Instances <29> and <35> are missing values for this property.   |
| Interaction | Interaction | A value for property participants is required. Instances <49> <49> <10> <11> <12> <13> <14> <30> <34> <56> and <90> are missing values for this property. |

Being (0, 25)

ContactPoint (0, 4)

Facility (0, 0)

IndustryType (0, 0)

Interaction (0, 11)

InventoryRecord (0, 0)

Item (0, 0)

Language (0, 0)

Location (0, 7)

Manufacturing\_Division (0, 0)

OrderItem (2, 2)

Party (0, 2)

PartyName (0, 0)

PriceScheme (2, 2)

Product (0, 0)

Role (0, 2)

Sale (0, 0)

ShippingMethod (0, 0)

Datum (0, 0)

Instant (0, 0)

RecurringInstant (0, 0)

RecurringTimePeriod (0, 0)

TimeMeasure (0, 0)

TimePeriod (0, 0)

TimeZone (0, 0)

Marc Berger on localhost

My Workspace

EnterpriseLibraryTrade

Online

918

1311

FIG. 13

1401

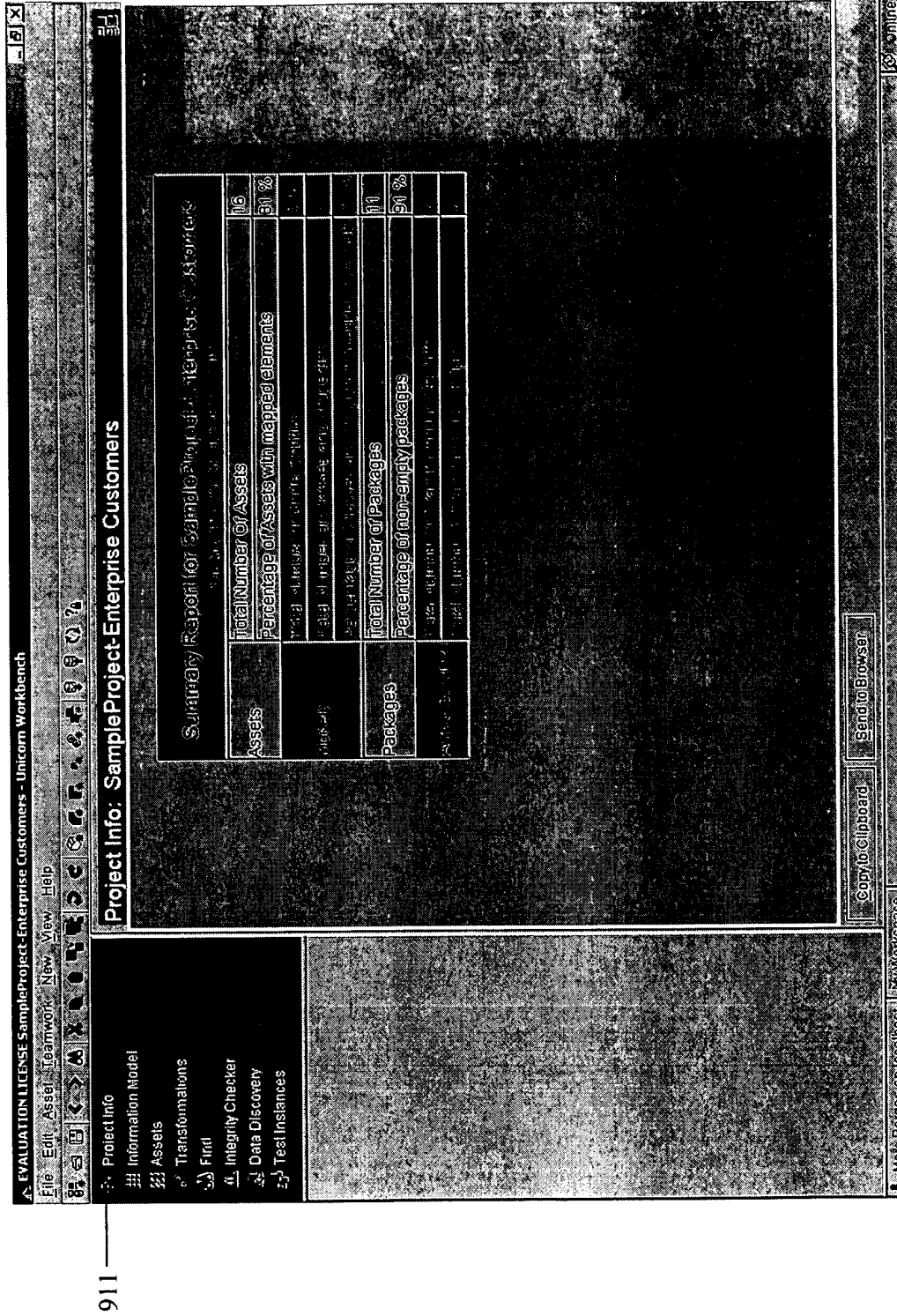


FIG. 14

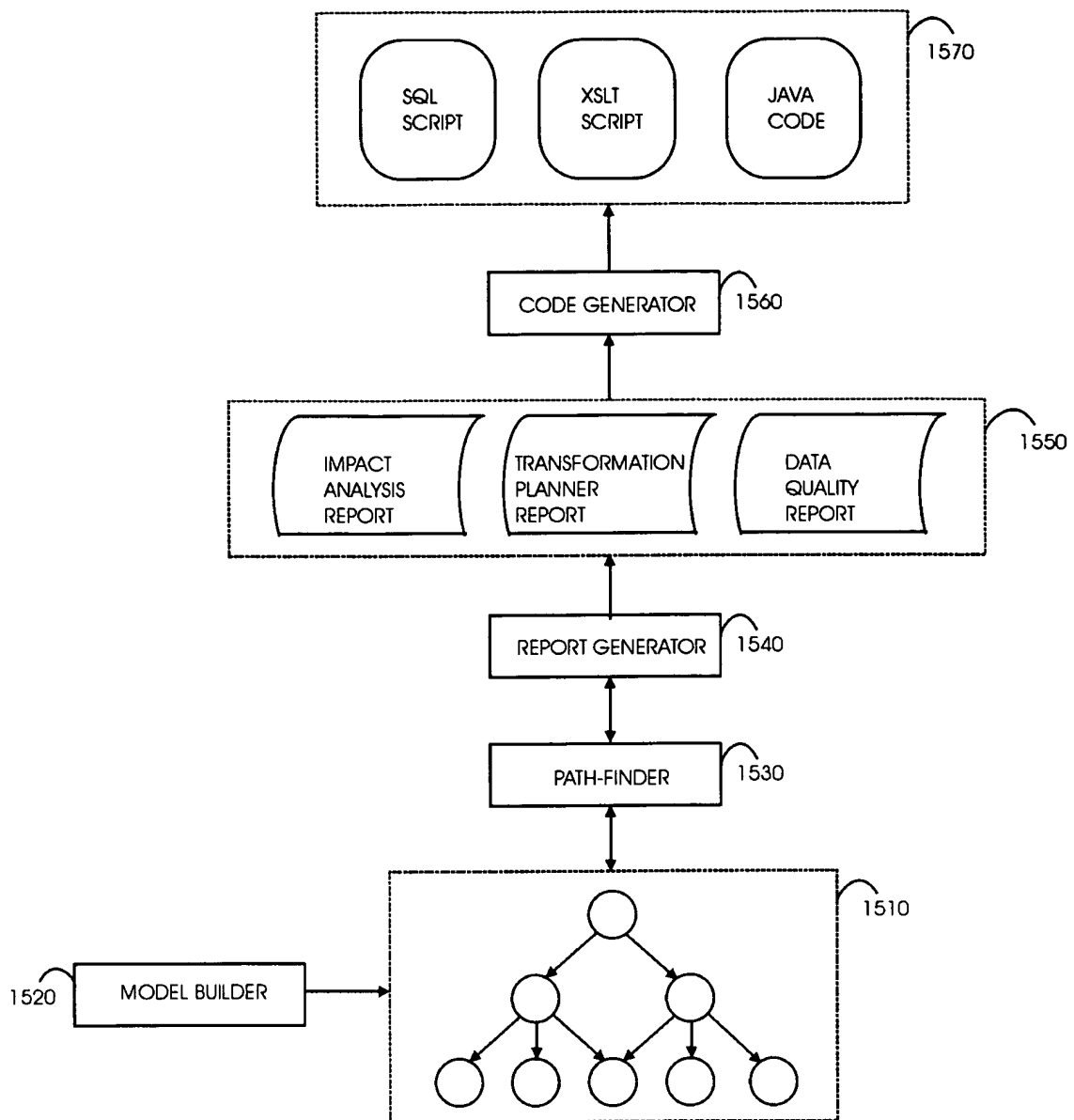


FIG. 15